

RC2000A

Commercial Satellite Antenna Controller for Dual Axis Antennas



FEATURES

- Automatic Positioning precisely positions antenna with the press of a single key
- Auto-Pol Input polarity output tracks receiver transponder value
- High Resolution Sensor Processing insures accurate Ku-band positioning
- ➤ Three-wire PolarotorTM Interface allows automatic or manual polarizations control
- Dual Speed for fast slewing, fine positioning, user Programmable
- > Non-volatile Memory

- stores up to 50 preset position and polarization combinations
- Solid-State Drive Circuitry provides reliable, quiet operation, rated at 10A
- Built in Current Limiting protects controller from excessive loads
- ➤ Adapti-DriveTM
 maintains stable speed with varying load
- Software Controlled Limits provides backup to mechanical limits
- RS-422 PC Control Interface allows scheduling of movements and automated control

OPERATIONAL OVERVIEW

The RC2000A was designed to provide years of reliable operation through the use of a heavy duty solid-state drive network coupled with a novel microcontroller-based fault monitoring system. The 10 amp drive output capability is unparalleled in the market and the Adapti-Drive™ digital servo speed control optimizes antenna movement for today's demanding Ku-band applications. Additional features like an RS-422 communication port for PC control and a very user-friendly, menuing scheme make the RC2000A a unique and highly adaptable piece of equipment.

MODES

The RC2000A operates in a mode architecture whereby the controller's operational status is governed by the selected mode. An explanation of these modes are listed below.

MANUAL: Allows for manual jogging of the antenna azimuth, elevation and polarization axis. The fast/slow speed

toggle is active in this mode.

AUTO: A satellite, previously saved in memory, can be recalled and the RC2000A will position the antenna on

the selected satellite.

SETUP: This mode is invoked to store azimuth, elevation and polarization values memory for a selected satellite.

RESET: Used to reset the drive over-current protection circuits after the load error has been corrected.

DELETE: Allows the user to delete a satellite from the list of stored values.

FIX: Used to restore the proper position counters in the event of a memory error or sensor failure.

AZIM SLOW: This mode allows the user to select an appropriate drive slow speed value to optimize system

performance.

ELEV SLOW: Same as for Azim Slow

CONFIG: Provides a concise point to enter any necessary system constants or enable options. Examples are

Auto-Pol sense and status as well as simultaneous movement of axis during an Auto move.

LIMITS: Software limits are set for both axis in this mode. They provide backups for the mechanical limits and

establish an estimate of the antenna range of operation.

SPECIFICATIONS

Power:	115/230 VAC, 48W	Drive Output:	12 – 36 VDC, 10 Amps
Size:	19.0″ W x 3.5″ H x 9.0″ D	Sensor Input:	Reed, Hall Effect, Optical
Weight:	12.5 lbs.	Polarization:	Standard Polarotor™ interface
Temperature:	0 – 50° C	PC Interface:	RS-422, 4 wire